BEFORE

THE PUBLIC SERVICE COMMISSION OF

SOUTH CAROLINA

DOCKET NOS. 2021-143-E AND 2021-144-E

IN RE:	Application of Duke Energy Progress, LLC for Approval of Smart $aver Solar as Energy Efficiency Program Application of Duke Energy Carolinas, LLC forApproval of Smart $aver Solar as Energy Efficiency Program	**SOUTH CAROLINA OFFICE OF REGULATORY STAFF'S MOTION TO STRIKE CERTAIN TESTIMONY**

Pursuant to S.C. Code Ann. Regs. §§ 103-829, -845, -846, and -849, and Rule 702 of the South Carolina Rules of Evidence, the South Carolina Office of Regulatory Staff ("ORS") hereby moves that the Public Service Commission of South Carolina ("Commission") issue an order striking certain testimony included in the October 15, 2021 surrebuttal testimony filed by Eddy Moore on behalf of the Southern Alliance for Clean Energy ("SACE"), South Carolina Coastal Conservation League ("CCL"), Upstate Forever, Vote Solar, and the North Carolina Sustainable Energy Association (collectively, "the Clean Energy Intervenors"). In support thereof, ORS would respectfully show as follows:

ARGUMENT

I. Witness Moore's Surrebuttal Improperly Responds to ORS Direct Testimony

The Clean Energy Intervenor's improperly use Witness Moore's surrebuttal to respond to issues raised by ORS witnesses in direct testimony. It would be procedurally improper and patently and prejudicially unfair to allow Witness Moore to present improper surrebuttal. The improper portions of Witness Moore's surrebuttal should be stricken for the following reasons.

First, while Witness Moore initially states the purpose of his surrebuttal testimony is to, "respond to the Rebuttal Testimonies submitted by Duke Energy witnesses regarding the Smart $aver Solar Energy Efficiency Program ("Program") that Duke Energy is proposing in this docket,"[1] Witness Moore goes on to state his clear intent to provide "certain further responsive observations"[2] to ORS's direct testimony. In fact, Witness Moore's surrebuttal testimony frequently and explicitly provides direct responses to ORS Witnesses Horii and Morgan.

Such testimony is improper. Surrebuttal is the response to the opposing party's rebuttal in a trial or other proceeding; in other words, a rebuttal to a rebuttal. Black's Law Dictionary (11th ed. 2019). In proceedings before the Commission, the Applicant, as the party with the burden of proof, must produce and disclose its case, including evidence in support thereof, and after ORS and any intervening parties offer their respective evidence, the Applicant then may pursue rebuttal testimony. If the Applicant interjects new matters into evidence, or raises facts, evidence, or theories different from what was first set out, surrebuttal is proper but only to the extent that it is limited to replying to those new matters raised in rebuttal.[3] Surrebuttal testimony therefore ensures that ORS and other responding parties have the ability to address new matters, facts, and evidence raised in the **Applicant's rebuttal testimony**. Courts in South Carolina have long held that surrebuttal should be limited in scope to address issues raised in rebuttal. *Daniel v. Tower Trucking Co.*, 205 S.C. 333, 32 S.E.2d 5 (1994) ("He upon whom lies the burden of proof has the right to offer reply (rebuttal) testimony to that of his adversary and the latter's witnesses, provided it is in the nature of a true reply and not such as should have been offered in the case in chief."); *see also*

[1] Moore Surrebuttal, p. 1, ll. 11-13.

[2] Moore Surrebuttal, p.1, l. 15.

[3] *State v. Summer*, 55 S.C. 32, 32 S.E. 771 (1899) ("Evidence in surrebuttal: The case, at first made out by the plaintiff, should apprise the defendant of the ground upon which the cause of action is finally to rest. Accordingly, if the plaintiff in reply puts new matter in evidence, or makes a new case, different from that at first made out, it becomes the right of the defendant to call witnesses in surrebuttal.").

McGaha v. Mosely, 283 S.C. 268, 322 S.E.2d 461 (Ct. App. 1984) ("Reply testimony should be limited to rebuttal of matters raised in defense."). It is well-established that surrebuttal responds to rebuttal. Further, based on the plain language of Commission Order No. 2021-611(A) establishing the procedural schedule in this case, it is clear that the Commission's procedural schedule in these dockets did not contemplate intervenor-surrebuttal in response to ORS direct testimony. Accordingly, those portions of Witness Moore's testimony responding to ORS's direct testimony are improper and should be struck.

Second, surrebuttal as an integral part of the administrative hearings process provides a safeguard against the element of unfair surprise. *See Daniel, McGaha, supra.* The principal of preventing unfair surprise is also reflected in jurisdictions outside of South Carolina, where courts considering the issue have equated surrebuttal with fairness and transparency, and allows for equitable treatment among the parties. *Ross v. Danter Assocs.*, Inc., 102 Ill. App. 2d 354, 367, 242 N.E.2d 330, 336 (Ill. App. Ct. 1968) ("The purpose of surrebuttal is to permit the defendant to introduce evidence in refutation or opposition to new matters interjected into the trial by the plaintiff of rebuttal. In other words, fairness requires that the defendant be permitted to oppose new matters presented by plaintiff for the first time which the defendant could not have presented or opposed at the time of the presentation of his main case.") citing *City of Sandwich v. Dolan*, 141 Ill. 430, 31 N.E. 416 and *City of Rock Island v. Starkey*, 189 Ill. 515, 59 N.E. 971.[4]

Here, however, Witness Moore's improper surrebuttal would have the opposite effect. As surrebuttal is intended solely for the purpose of responding to issues raised in the Applicant's rebuttal testimony, ORS will be unduly prejudiced and deprived of a meaningful opportunity to

[4] *See generally* 88 C.J.S. Trial § 199 (1955) ("Surrebuttal is appropriate when, in the judge's discretion, new matter or new facts are injected for the first time in rebuttal, especially where the evidence offered in surrebuttal is for the first time made competent by the evidence introduced by the plaintiff in rebuttal.").

respond to new matters raised in Witness Moore's surrebuttal if the Clean Energy Intervenors are permitted to improperly use surrebuttal to address ORS's direct testimony. Such a result would not only limit ORS's opportunity to respond meaningfully, but it would prevent the Commission, customers, and other interested persons from being made fully aware of each of the parties' positions in advance of a hearing on the merits. Such an outcome cuts against the intent of Commission Regulation 103-845.C which states that parties, "insofar as it is practicable, should prefile with all other parties of record copies of prepared testimony and exhibits which the party of record proposes to use during a hearing." As a result, ORS is unduly prejudiced by not having a meaningful opportunity to respond to matters raised by the Clean Energy Intervenors. Moreover, such a result does not support administrative economy or fairness and would detract from the ultimate issue before the Commission (i.e., Duke Energy's request).

If the Clean Energy Intervenors had wished to offer rebuttal testimony to ORS's direct testimony, the proper course would have been for the Clean Energy Intervenors to request that the Commission establish a deadline for ORS/Intervenor rebuttal testimony. The Clean Energy Intervenors made no such request.[5] Such rebuttal testimony, if permitted, would presumably have been due on October 5, 2021, the same date that the Companies' rebuttal testimony to ORS/Intervenor direct testimony was due. Instead, Witness Moore's surrebuttal to ORS's direct testimony was only filed on October 15, 2021, some 24 days after ORS filed its direct testimony. Such an outcome would not be good precedent. If generally allowed, the ORS and intervenors, say in a contested rate case, would be allowed potentially *weeks* of additional time—time not available to the applicant-utility—to present critiques of the applicant-utility's direct testimony via

[5] For the reasons already stated, ORS believes that ORS/intervenor testimony is properly focused on the Application. A request to establish ORS/intervenor prefiled rebuttal deadlines would be improper for this reason. However, filing intervenor rebuttal, if such a request were granted, would be far less prejudicial than the current circumstance of intervenor surrebuttal improperly submitted against ORS direct testimony.

ORS/intervenor surrebuttal based on critiques offered in the direct testimony of another intervening party. The applicant-utility would then have no ability to respond to such "surrebuttal" via its prefiled rebuttal testimony. That is not a fair result or good policy, nor is it consistent with typical practice before the Commission in contested proceedings.

Here, ORS has no opportunity to offer prefiled testimony to respond to Witness Moore's improper surrebuttal responding to ORS's direct testimony. Witness Moore's late-breaking testimony was not contemplated by the Commission's procedural schedule entered in Order No. 2021-611(A), is inconsistent with the definition and function of surrebuttal testimony to respond to rebuttal testimony, and is inconsistent with the Commission's existing practice where surrebuttal is provided in response to rebuttal testimony. Permitting the Clean Energy Intervenors to file surrebuttal in response to ORS's direct testimony puts ORS and the Clean Energy Intervenors on an unequal footing that cannot be remedied short of striking such improper testimony.

To the extent the Clean Energy Intervenors wish to refute evidence presented by ORS Witnesses Horii and Morgan in direct testimony, the Clean Energy Intervenors' counsel should be required to avail themselves of the opportunity to conduct examination of the ORS witnesses. Just as ORS must do.

The following portions of Witness Moore's surrebuttal testimony stand in direct response to ORS witnesses' direct testimony. Accordingly, ORS submits that the following portions of Witness Moore's testimony should be stricken, should not be considered by the Commission, and should not permitted to be entered into the record of evidence:

1) Moore Surrebuttal, p.1, l. 14-15;
2) Moore Surrebuttal, p. 2, ll. 4-7; ll. 10-11;
3) Moore Surrebuttal, p. 5, ll. 1-3; ll. 5-6;

4) Moore Surrebuttal, p. 7, l. 9 through p. 8, l. 15;

5) Moore Surrebuttal, p. 8, ll. 19-20;

6) Moore Surrebuttal, p. 11, l. 10 through p. 12, l. 3 ; and

7) Moore Surrebuttal, p. 12, 11. 7-8.

II. Improper Legal Opinion Testimony

Pursuant to S.C. Code Ann. Reg. § 103-846, the South Carolina Rules of Evidence shall be followed in proceedings before the Commission. According to Rule 702 of the South Carolina Rules of Evidence expert opinion testimony is allowed "[i]f scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue" when the witness is "qualified as an expert by knowledge, skill, experience, training, or education." However, "[e]xpert testimony on issues of law is inadmissible" in South Carolina. *Dawkins v. Fields*, 354 S.C. 58, 66, 580 S.E.2d 433, 437 (2003). The Supreme Court of South Carolina has held that expert opinions on legal arguments are not designed to assist the trier of fact understand facts and fall outside the scope of SCRE Rule 702. *See, e.g., Green v. State*, 351 S.C. 184, 198, 569 S.E.2d 318, 325 (2002) (excluding expert testimony because it was not designed to assist the court's understanding of certain facts, but, rather, was legal argument as to why the court should rule, as a matter of law, on the legal question before it); *Kirkland v. Peoples Gas Co.*, 269 S.C. 431, 434, 237 S.E.2d 772, 773 (1977) (affirming the circuit court's exclusion of expert testimony interpreting Department of Transportation Regulations that "constituted conclusions of law reserved to the province of the court").

Witness Moore's pre-filed surrebuttal testimony contains legal arguments and draws legal conclusions interpreting Act 62 and Act 236, as well as suggesting how and why the Commission should make a particular ruling related to the programs proposed by Duke Energy Progress, LLC

and Duke Energy Carolinas, LLC in these dockets. For instance, without any reservation, Witness Moore offers a legal opinion on the limitations of Act 62 when he states, "[p]ut another way, Act 62 properly (in my opinion) prohibited utilities from recovering lost revenues merely based on a customer's decision to install solar (i.e. to exercise a "Solar Choice")."[6] Witness Moore also renders legal opinions on lost revenues in the context of Act 236: "Under Act 236, those lost revenues were triggered, as a matter of right to the utility, whenever a customer decided to adopt solar, even if the utility had nothing to do with the decision."[7] Witness Moore also testifies on the Commission's ability to render decisions under Act 62, saying:

> While Act 62 prohibited the collection of lost revenues related to the ongoing customer solar market, it did not prohibit the utility and the Commission from taking action to accelerate or expand behind-the-meter solar energy consumption over and above that market, if such additional increment of behind-the-meter solar energy consumption is shown under the authorized EE/DSM framework to benefit all ratepayers by reducing the cost of utility service.[8]

The determination of how S.C. Code Ann. § 58-40-20 applies in this proceeding lies solely within the province of the Commission and the Clean Energy Intervenors' attempt to interject Witness Moore's unqualified legal opinions should not be permitted. Allowing Witness Moore to provide these legal opinions would violate the South Carolina Rules of Evidence and well-established Supreme Court precedent and would constitute reversible error if considered by the Commission. Accordingly, the following portions of Witness Moore's surrebuttal testimony should be stricken, should not be considered by the Commission, and should not be permitted to be entered into the record of evidence:

1) Moore Surrebuttal, p. 5, l. 19 through p. 6, l. 2;

[6] Moore Surrebuttal, p. 5, ll. 19-21.
[7] Moore Surrebuttal, p. 5, l. 21 – p. 6, ll. 1-2.
[8] Moore Surrebuttal, p. 6, ll. 8-13.

2) Moore Surrebuttal, p. 6, ll. 8-13;

3) Moore Surrebuttal, p. 11, ll. 13-15; and

4) Moore Surrebuttal, p. 11, l. 19 through p. 12, l. 3.

CONCLUSION

For the foregoing reasons, ORS respectfully moves that the Commission issue an order striking the aforementioned sections from Witness Moore's surrebuttal testimony (as fully described in Attachment A hereto), which was filed by the Clean Energy Intervenors on October 15, 2021, and for such other relief as the Commission may deem necessary and appropriate.

Respectfully submitted,

Alexander W. Knowles, Esquire
Andrew M. Bateman, Esquire
Benjamin P. Mustian, Esquire
South Carolina Office of Regulatory Staff
1401 Main St., Suite. 900
Columbia, SC 29201
Phone: (803) 737-0800
(803) 737-0801
Email: aknowles@ors.sc.gov
abateman@ors.sc.gov
bmustian@ors.sc.gov

October 18, 2021.

SOUTHERN ENVIRONMENTAL LAW CENTER

525 East Bay Street, Suite 200
Charleston, SC 29403

Telephone 843-720-5270
Facsimile 843-414-7039

October 15, 2021

VIA ELECTRONIC FILING

The Honorable Jocelyn G. Boyd
Chief Clerk/Administrator
Public Service Commission of South Carolina
101 Executive Center Drive
Columbia, South Carolina 29210

In Re: Applications for Duke Energy Progress, LLC and Duke Energy Carolinas, LLC for approval of Smart $aver as Energy Efficiency Program
Docket No. 2021-143-E & Docket No. 2021-144-E

Dear Ms. Boyd:

On behalf of the South Carolina Coastal Conservation League, Southern Alliance for Clean Energy, North Carolina Sustainable Energy Association, Upstate Forever, and Vote Solar, please find the Surrebuttal Testimony of Eddy Moore attached for electronic filing in the above-referenced dockets.

Please contact me if you have any questions regarding this filing.

Sincerely,

s/Emma Clancy
Southern Environmental Law Center
525 East Bay Street, Suite 200
Charleston, South Carolina 29403
Telephone: (843) 720-5270
Facsimile: (843) 414-7039
eclancy@selcsc.org

Counsel for South Carolina Coastal Conservation League, Southern Alliance for Clean Energy, North Carolina Sustainable Energy Association, Upstate Forever, and Vote Solar

STATE OF SOUTH CAROLINA

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:	)	
Application of Duke Energy Progress, LLC for Approval of Smart $aver Solar as Energy Efficiency Program	)	**DOCKET NO. 2021-143-E**
	)	**DOCKET NO. 2021-144-E**
Application of Duke Energy Carolinas, LLC for Approval of Smart $aver Solar as Energy Efficiency Program	)	

SURREBUTTAL TESTIMONY

OF

EDDY MOORE

ON BEHALF OF

THE SOUTHERN ALLIANCE FOR CLEAN ENERGY, SOUTH CAROLINA COASTAL CONSERVATION LEAGUE, UPSTATE FOREVER, VOTE SOLAR, AND THE NORTH CAROLINA SUSTAINABLE ENERGY ASSOCIATION

October 15, 2021

TABLE OF CONTENTS

I. INTRODUCTION AND QUALIFICATIONS 1

II. "ENERGY EFFICIENCY" UNDER SOUTH CAROLINA LAW 2

III. THE ENERGY SAVINGS THAT FORM THE BASIS FOR NET LOST REVENUE RECOVERY UNDER THE PROGRAM ARE FACTUALLY DISTINCT FROM SOLAR PRODUCTION UNDER SOLAR CHOICE. 3

IV. MEASURING THE PROGRAM'S COST-EFFECTIVENESS 8

V. CONCLUSION AND RECOMMENDATIONS 12

I. INTRODUCTION AND QUALIFICATIONS

Q. WHAT IS YOUR NAME AND YOUR CURRENT JOB TITLE?

A. My name is Eddy Moore and I am the Energy & Climate Program Director for the South Carolina Coastal Conservation League ("CCL").

Q. ON WHOSE BEHALF ARE YOU PROVIDING TESTIMONY?

A. I am testifying on behalf of CCL, the Southern Alliance for Clean Energy ("SACE"), Upstate Forever, Vote Solar, and the North Carolina Sustainable Energy Association ("NCSEA").

Q. WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY IN THIS PROCEEDING?

A. To respond to the Rebuttal Testimonies submitted by Duke Energy witnesses regarding the Smart $aver Solar Energy Efficiency Program ("Program") that Duke Energy is proposing in this docket. In general, I agree with Duke Energy Witness Tim Duff ~~and his critique of the Office of Regulatory Staff's ("ORS") direct testimony, with certain further responsive observations~~. I reiterate the recommendation from my Direct Testimony that the Commission approve the Program.

Q. DO YOU AGREE WITH DUKE ENERGY WITNESS DUFF?

A. Generally, yes. He is correct that the Commission should rely on the Utility Cost Test ("UCT") as the determinative cost-effectiveness test in these dockets; that the Program will result in energy efficiency; that the evaluation, measurement, and verification ("EM&V") process that currently applies to energy efficiency and demand-side management ("EE" and "DSM") programs will "true-up" any real-world variation in the initial program assumptions regarding "free riders;"

and that ORS witnesses misconstrue Program costs and attempt to improperly apply different rules in this case for assessing avoided transmission and distribution ("T&D") than for other EE/DSM cases.

~~I am offering surrebuttal testimony on these points to further clarify Witness Duff's responses to ORS Witness Horii (and in some cases, ORS Witness Morgan), which could leave the Commission with an incomplete, and somewhat confusing picture of the current South Carolina EE/DSM framework.~~

I also highlight in surrebuttal that certain factual aspects of the South Carolina EE/DSM framework addressed in Duke Energy's rebuttal testimony are central to the Commission's determination ~~regarding ORS's mistaken contention that recovering "lost revenues" are prohibited~~.

II. "ENERGY EFFICIENCY" UNDER SOUTH CAROLINA LAW

Q. IS WITNESS DUFF CORRECT THAT SMART $AVER SOLAR IS AN APPROPRIATE PROGRAM UNDER SOUTH CAROLINA'S DEMAND-SIDE MANAGEMENT, ENERGY EFFICIENCY, AND CONSERVATION LAW?[1]

A. Yes. South Carolina law broadly authorizes programs for the "reduction **or** more efficient use of energy . . . including customer conservation and efficiency, . . .**and renewable energy technologies**."[2] All of these potential customer activities reduce the amount of energy provided by and fuel used by the utility system. This is, in part, why, as Witness Duff points out, the Commission has previously approved both solar hot water heating and topping-cycle

[1] Rebuttal Testimony of Timothy Duff at 3, Docket Nos. 2021-143-E & 2021-144-E (Oct. 5, 2021).
[2] S.C. Code Ann. 58-37-20 (emphasis added).

combined heat and power ("CHP") as demand reduction and efficiency measures pursuant to S.C. Code Ann. 58-37-20.

III. THE ENERGY SAVINGS THAT FORM THE BASIS FOR NET LOST REVENUE RECOVERY UNDER THE PROGRAM ARE FACTUALLY DISTINCT FROM SOLAR PRODUCTION UNDER SOLAR CHOICE.

Q. DOES WITNESS DUFF ACCURATELY EXPLAIN HOW THE EM&V PROCESS WILL EVALUTE ANY FREE-RIDERS IN THE PROGRAM?

A. Yes, but I would like to offer more context. It is important for the Commission to see the full significance of this framework as it applies to the Program. The difference between gross energy savings and net energy savings caused by the Program is very important in this case.

Q. IN THE CONTEXT OF ENERGY EFFICIENCY PROGRAMS, WHAT ARE "GROSS SAVINGS?"

A. Gross savings are all of the energy savings caused by every measure implemented through an EE program. For instance, if customers redeem 1,000 individual utility rebates to buy efficient light bulbs that each save 10 kWh per year, the gross energy savings would be 10,000 kWh per year.

Q. WHAT ARE "NET SAVINGS?

A. "Net savings" are the energy savings actually caused by the program, and are determined after-the-fact through an evaluation, measurement, and verification process called "EM&V." For instance, some program participants likely would have installed an efficient light bulb even without the utility rebate. They were happy to use the rebate, but, in their case, the rebate did not cause any additional energy savings. They are thus called "free riders."

It is not uncommon for gross savings to be adjusted downward by 20% or more to account for free riders, and one goal of good program design is to minimize free-ridership.[3] This means that the utility can only claim the remaining 80% of the gross energy savings for the purpose of calculating the lost revenues and utility performance incentive that are collected through the EE/DSM rider.

It is also possible for a program to create "spillover"; this means that the program inspired customers to install other energy efficiency measures beyond the program, so that its energy savings impact is greater than gross savings minus free riders. The adjustment of gross energy savings to obtain net energy savings results in what is called the "Net-to-Gross" ("NTG") ratio. A program that causes 10,000 kWh of gross savings, with 2,000 kWh of free ridership and 500 kWh of spillover would thus have an 85% NTG ratio.

The point of this whole framework is that the utility is not given credit for any energy savings that would have happened outside the program, in the "free market." Indeed, a large share of the market usually occurs outside EE programs. Utilities must prove that their programs cause an additional increment of energy savings that would not have occurred in the market, and they only get credit for that additional increment.

Q. WHY IS THIS UNDERSTANDING OF GROSS SAVINGS, NET SAVINGS, FREE-RIDERS, AND SPILLOVER IMPORTANT IN THIS CASE?

[3] In the case of the Program, Duke has estimated 10% free ridership. *See* Rebuttal Testimony of Timothy Duff at 18, Docket Nos. 2021-143-E & 2021-144-E (Oct. 5, 2021).

A. ~~ORS has argued in its testimony that the proposed Program would unlawfully recover lost revenue through the DSM Rider in violation of the Solar Choice statute, S.C. Ann. Code § 58-20-40(I).~~[4] However, the lost revenues prohibited under Solar Choice are completely distinct from the net lost revenues recovered through the EE/DSM rider. ~~In addition, Mr. Horii's concerns regarding the 10% free ridership number are misplaced.~~

First, regardless of whether Duke is correct about the assumed 90% net-to-gross (and corresponding 10% free ridership), this number will be determined after the fact and the EE/DSM rider will be trued-up so that customers will not pay for any net lost revenues that were not actually caused by the program.

Second, the whole point of the NTG framework is that utility Program energy reductions are distinct from, and additional to, any energy reductions that would have happened under Solar Choice alone, in the broader market. This means that, based on the existing EE framework, the Program will not cause lost revenue recovery for Solar Choice as it existed before this program, *and as it continues*, outside of this program. Rather, it will, appropriately and by statutory requirement, allow short-term recovery of net lost revenues associated with the increment of expansion in the solar market that is specific to Smart $aver Solar.

~~Put another way, Act 62 properly (in my opinion) prohibited utilities from recovering lost revenues merely based on a customer's decision to install solar (i.e. to exercise a "Solar Choice"). Under Act 236, those lost revenues were~~

[4] ~~Direct Testimony of O'Neil Morgan at 9, Docket Nos. 2021-143-E & 2021-144-E (Sept. 21, 2021) (citing Act 62).~~

~~triggered, as a matter of right to the utility, whenever a customer decided to adopt solar, even if the utility had nothing to do with the decision.~~ Every solar adoption in the market counted and every kilowatt hour produced by customer rooftop solar counted, thereby insulating the utility financially from a change in technology that is sweeping the country and is a rightful customer choice. Further, those lost revenues were calculated as the difference between customer bill savings and an administratively-determined "value of solar."

~~While Act 62 prohibited the collection of lost revenues related to the ongoing customer solar market, it did not prohibit the utility and the Commission from taking action to accelerate or expand behind-the-meter solar energy consumption over and above that market, if such additional increment of behind-the-meter solar energy consumption is shown under the authorized EE/DSM framework to benefit all ratepayers by reducing the cost of utility service.~~

The factual distinction between the regular solar market and additional EE/DSM solar is further underlined by the fact that the EE-based net lost revenue calculation is different and does not require Commission determination of an 11-factor "value of solar." Further, because the EE approach to solar under the Program counts only the portion of customer solar production that is self-consumed behind the meter on a monthly basis (and is unrelated to net solar exports to the grid), the underlying basis for the calculation is distinct and different from Act 236-based Solar Choice lost revenues.

Under the EE/DSM framework, self-consumed customer renewable generation is treated just like other conservation measures: if a customer installs

an efficient light bulb on his or her own, there is no net-lost revenue recovery. Even if a customer uses a utility rebate to install an efficient lightbulb, net-lost revenue recovery will be denied unless EM&V shows that the customer was not a free-rider. But if the utility truly expands the adoption of energy-saving measures, at a cost which is shown under the framework previously established for this purpose to be beneficial for all utility ratepayers, then net-lost revenue recovery is both appropriate and required to the extent that the incremental result is proven.

~~Q. WHILE WE ARE ON THE SUBJECT OF LOST REVENUE, DO YOU AGREE WITH WITNESS DUFF THAT ORS WITNESS MORGAN "UNDULY FOCUSES [ON] THE COSTS OF THE PROGRAM"?~~

~~A. I do. But I believe that Witness Duff does not go far enough. His point is that Witness Morgan focuses only on program costs and not on program benefits. Witness Duff is correct that it would not serve ratepayers to focus only on costs, if the benefits of a program, in terms of lowering utility system costs paid by all ratepayers, outweigh those costs.~~

~~However, a more basic point is that Witness Morgan presents to the Commission a picture of program costs that give equal weight to three components of EE/DSM rider recovery: (1) program administration/incentives, (2) net lost revenues, and (3) the utility incentive.[5] The Commission should understand that the net lost revenue component is sometimes called a "cost" in the context of the EE/DSM rider, but it is not an *additional* cost to ratepayers as a whole. If the Program did not exist, that same revenue would have been~~

~~[5] *Id.* at 6-8.~~

~~collected through base rates, due to sales of electricity. Thus, by failing to balance costs with benefits, *and* by rolling net-lost revenues into the costs as though they are an additional cost, Witness Morgan gives an inflated picture of the impact of the Program on ratepayers, and leaves the Commission with the false impression that ratepayers can avoid the net-lost revenue costs by denying the Program.~~

~~Witness Duff correctly points out, in response to Witness Morgan's focus on the EE/DSM rider components, that a cost-effective EE or DSM program will tend to lower overall rates over time, including fuel rates.[6] It is a general principal of ratemaking that individual rates interact with each other. Even if the EE/DSM rider increases for a period of time, it usually causes a nearly-immediate reduction in the fuel rider and also the avoidance of costs that are typically included in base rates. Basically, the DSM rider cannot be considered in isolation. Witness Duff's response thus more than adequately allays Witness Morgan's concerns.~~

IV. MEASURING THE PROGRAM'S COST-EFFECTIVENESS

Q. DO YOU AGREE WITH WITNESS DUFF'S FOCUS ON THE UTILITY COST TEST AS A BASIS FOR THE COMMISSION'S DECISION IN THIS CASE~~, RATHER THAN WITNESS HORII'S RELIANCE ON TOTAL RESOURCE COST TEST~~?

A. Yes. And not merely because Commission recently adopted UCT rather than the Total Resource Cost test ("TRC") as the principle cost-effectiveness test and

[6] Rebuttal Testimony of Timothy Duff at 12, Docket Nos. 2021-143-E & 2021-144-E (Oct. 5, 2021).

should follow its own Order establishing the EE/DSM Mechanism in this proceeding: the UCT is the right approach for this kind of case.

For decades, TRC has been the primary test for most states, but there has been a recent trend towards using the UCT as the primary test.[7] As the names imply, the "total" resource cost test was originally intended to provide a type of global assessment of a demand-side resource's cost and benefits to ratepayers as a whole, while the UCT weighs costs and benefits from the utility's perspective.

However, two things about TRC are notable for this case. First, the TRC test does not evaluate the cost of utility incentives paid for by non-participating ratepayers, because under its all-ratepayer viewpoint, utility incentives are merely a transfer from one set of ratepayers to another, and not an increase in total cost.[8] If one is concerned about whether ratepayers are getting a good deal in exchange for the incentives that they are funding through the program, the UCT, which includes ratepayer-funded incentives, is the appropriate test.

Second, the reason many practitioners began to question TRC as the primary test is because it usually is not applied in a symmetrical manner, leading

[7] *See, e.g.*, Chris Neme and Marty Kushler, *Is it Time to Ditch the TRC?: Examining Concerns with Current Practice in Benefit-Cost Analysis*, ACEEE (2010) (https://www.aceee.org/files/proceedings/2010/data/papers/2056.pdf).

[8] *California Standard Practice Manual: Economic Analysis of Demand-Side Programs and Projects*, at 21 (providing that ". . . this test treats incentives paid to participants and revenue shifts as transfer payments from all ratepayers to participants through increased revenue requirements . . .") (https://www.raponline.org/wp-content/uploads/2016/05/cpuc-standardpractice-manual-2001-10.pdf). I recommend that Commissioners read the *California Standard Practice Manual* because it is relatively short and clear, relevant to many South Carolina proceedings, and provides a useful framework to think about both demand-side and distributed energy resources.

to an artificially low score. This is because it is easy to include all of the *costs* incurred by ratepayers to obtain the resource in question, but in practice it is difficult to include all of the *benefits* that the participating ratepayers are receiving, because many are intangible or difficult to quantify. For instance, highly-efficient equipment is also often premium equipment. A highly-efficient air conditioner may have other features such as separate humidity control, air purifiers, or quieter operation, or it may appeal to the buyer for its improved environmental impact. Some of the extra cost paid by the customer may actually be for *these* benefits rather than the energy savings, but that is not captured in the TRC test that supposedly considers all costs and all benefits of the resource.

Customer solar is a prime example of this dynamic. Solar customers may value its environmental benefits, or believe that solar increases their property value or makes electric vehicle ownership more cost-effective. Those benefits may be a significant part of what the customer is paying for, but they are typically not included in the TRC test. Because the TRC is close to 1 for the Company's proposed Smart $aver Solar Program without counting these customer benefits, Witness Duff appropriately indicated in his Direct Testimony that true TRC for the stand-alone Smart $aver Solar Program is likely higher.[9] Use of the UCT, however, avoids these issues because it looks only at utility costs paid by ratepayers versus utility benefits enjoyed by ratepayers.

[9] Direct Testimony of Timothy Duff at 6-7, Docket Nos. 2021-143-E & 2021-144-E (Aug. 20, 2021).

In short, the Commission should continue to rely on UCT in accordance with its prior order making the UCT and not the TRC the primary cost-effectiveness test—a reliance that is particularly appropriate in the case of the Program. Additionally, as Witness Duff shows in rebuttal, even the Program's TRC is positive across the South Carolina territories of DEC and DEP when the associated Bring-Your-Own-Thermostat program is included.[10]

Q. SHOULD DUKE USE THE PREVIOUSLY-APPROVED METHODOLOGY FOR ESTIMATING T&D BENEFITS FOR THE SMART $AVER SOLAR PROGRAM?

A. Yes, ~~as Witness Duff indicates,[11] Witness Horii's development of a new circuit-level T&D methodology only for customer solar implies that circuit-level T&D avoided costs should be developed for all other EE measures, even though ORS has never before required that approach for any other measure. Singling out solar in this way would run afoul of the Act 62 directive to ". . . address all renewable energy issues in a fair and balanced manner . . ."[12]~~

~~ORS's approach reminds me of the Solar Choice docket, in which Witness Horii testified that customer solar causes a cost-shift based upon his imposition of a new cost-allocation method that was different from the method approved by this Commission in recent general rate cases.[13] It is not "fair and balanced," as required by Act 62, for Witness Horii and ORS to single out~~

[10] Rebuttal Testimony of Timothy Duff at 14, Docket Nos. 2021-143-E & 2021-144-E (Oct. 5, 2021).

~~[11] *Id.* at 15.~~

~~[12] S.C. Code Ann. § 58-41-05.~~

~~[13] *See* Orders No. 2021-390 at 75-76, Docket Nos. 2020-264-E & 2020-265-E (May 30, 2021) (rejecting Witness Horii's cost-allocation recommendations as "without precedent" and "not follow[ing] standard ratemaking procedures"~~

~~customer solar for novel, unapproved changes in the standard cost-effectiveness test, the standard T&D calculation, or the overall method of allocating utility costs.~~

While Duke is innovating to the degree that it incorporates solar within the EE/DSM framework, it is doing so in strict adherence to previously-established rules and evaluation practices. This provides a rational framework for the Commission to consider the program~~, rather than the *ad hoc* policy approach that ORS has taken to solar across several dockets~~.

Q. WITNESS DUFF NOTES THAT, ABSENT TAX CREDITS, CUSTOMER SOLAR WOULD NOT PASS THE PARTICIPANT COST TEST.[14] IS THIS SIGNIFICANT?

A. Yes, the Participant Cost Test determines whether participants in the program come out ahead or not. Low-to-moderate income customers, however, may not be able to take full advantage of the federal and state tax benefits. Their participation may be particularly dependent upon Commission approval of the program in this docket, which provides a more affordable path to rooftop solar.

V. CONCLUSION AND RECOMMENDATIONS

Q. WHAT IS YOUR RECOMMENDATION TO THE COMMISSION?

A. I reiterate the recommendation in my direct testimony that the Commission approve the Companies' Application for approval of the Smart $aver Solar Program on the basis that it meets the purposes and definitions of an energy reduction or efficiency program, that it is beneficial for ratepayers as a whole,

[14] Rebuttal Testimony of Timothy Duff at 19, Docket Nos. 2021-143-E & 2021-144-E (Oct. 5, 2021).

and is in the public interest. I believe it is not only a positive program in itself, but that the Commission's approval of the program would support improved coordination between efficiency and distributed renewable generation and between demand-side management and rate schedules, a result that is in customers' best interest. This conclusion is consistent with the recent letter of support for the Program submitted in these dockets by the American Council for an Energy-Efficient Economy ("ACEEE"), which notes that

> Programs that integrate energy efficiency, solar, and battery storage (solar+) combine the benefits of these distributed energy resources such as grid stability, resilience, emissions reductions, and energy savings. If designed and delivered correctly, the Smart Saver Solar program can enable Duke Energy to streamline and maximize customer benefits from its energy efficiency and customer-based renewable energy programs.[15]

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.

[15] ACEEE Updated Comments in Support, Docket Nos. 2021-143-E & 2021-144-E (Oct. 14, 2021).

CERTIFICATE OF SERVICE

I hereby certify that the parties listed below have been served via first class U.S. Mail or electronic mail with a copy of the *Surrebuttal Testimony of Eddy Moore* on behalf of South Carolina Coastal Conservation League, Southern Alliance for Clean Energy, North Carolina Sustainable Energy Association, and Upstate Forever.

Alexander W. Knowles, Counsel Office of Regulatory Staff 1401 Main Street, Suite 900 Columbia, South Carolina 29201 aknowles@ors.sc.gov	Carri Grube Lybarker, Counsel S.C. Department of Consumer Affairs Post Office Box 5757 Columbia, South Carolina 29250 clybarker@scconsumer.gov
Roger P. Hall, Assistant Consumer Advocate S.C. Department of Consumer Affairs Post Office Box 5757 Columbia, South Carolina 29250 rhall@scconsumer.gov	Heather Shirley Smith, Dep. General Counsel Duke Energy Corporation 40 West Broad Street, Suite 690 Greenville, South Carolina 29601 Heather.smith@duke-energy.com
Samuel J. Wellborn, Counsel Duke Energy Corporation 1201 Main Street, Suite 1180 Columbia, South Carolina 29201 sam.wellborn@duke-energy.com	Jeffrey W. Kuykendall, Counsel Attorney at Law 127 King Street, Suite 208 Charleston, South Carolina 29201 jwkuykendall@jwklegal.com
J. Ashley Cooper, Counsel Parker Poe Adams & Bernstein, LLP 200 Meeting Street, Suite 301 Charleston, South Carolina 29401 ashleycooper@parkerpoe.com	Marion William Middleton, III, Counsel Parker Poe Adams & Bernstein, LLP 110 East Court, Suite 200 Greenville, South Carolina 29601 willmiddleton@parkerpoe.com
Andrew M. Bateman, Counsel Office of Regulatory Staff 1401 Main Street, Suite 900 Columbia, South Carolina 29211 abateman@ors.sc.gov	Benjamin P. Mustian, Esquire Office of Regulatory Staff 1401 Main Street, Suite 900 Columbia, South Carolina 29211 bmustian@ors.sc.gov

This 15th day of October, 2021.

/s / Emma Clancy

Emma Clancy